[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD; Amendment 39-17004; AD 2012-06-23]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding an existing airworthiness directive (AD) for all Rolls-Royce plc (RR) RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines. That AD currently requires initial and repetitive ultrasonic inspections (UIs) of certain low-pressure (LP) compressor blades identified by serial number (S/N). This AD requires the same actions but expands the population of blades. This AD was prompted by RR concluding that additional blades affected must be inspected. We are issuing this AD to prevent LP compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive any comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ, telephone: 011–44–1332–242424; fax: 011–44–1332–245418, or e-mail:http://www.rolls-royce.com/contact/civil_team.jsp. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the

Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7143; fax: 781-238-7199; e-mail: alan.strom@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On April 1, 2011, we issued AD 2011-08-07, Amendment 39-16657 (76 FR 24798, May 3, 2011), for all RR RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines. On September 9, 2011, we also issued a correction (76 FR 59013, September 23, 2011) to that AD. That AD requires initial and repetitive UIs of certain LP compressor blades identified by S/N. That AD resulted from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. We issued that AD to prevent LP compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

Actions Since AD was Issued

Since we issued AD 2011-08-07 (76 FR 24798, May 3, 2011), RR determined that additional S/Ns of LP compressor blades are affected and require inspection. EASA has also issued AD 2012-0025, dated February 8, 2012, to expand the population of affected LP compressor blades operating in Europe. About 2,300 of the added blades require inspection within 70 cycles of the effective date of the AD since those blades have more fatigue damage from prior use.

This superseding AD differs from EASA AD 2012–0025. This AD only requires inspection of LP compressor blades that are listed in Appendices 3A through 3G of RR Alert Service Bulletin (ASB) No. RB.211-72-AG244, Revision 4, dated December 22, 2011. We are developing another AD to require inspection of LP compressor blades listed in Appendices 3H through 3L of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011.

Relevant Service Information

We reviewed Rolls-Royce plc ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011. The service information describes procedures for performing UIs of the LP compressor blades.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously except that this AD only requires inspection of LP compressor blades that are listed in Appendices 3A through 3G of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because about 2,300 LP compressor blades require inspection within 70 cycles after the effective date of the AD. This equates to about one month's time for Trent 800 engines flying two flights per day. Therefore, we find that

notice and opportunity for prior public comment are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2010-0821 and directorate identifier 2010-NE-30-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 158 engines installed on airplanes of U.S. registry. We also estimate that it will take about 3 hours per engine inspection, and six inspections per year. The average labor rate is $85 per work-hour. We estimate that one LP compressor blade per year will need replacement, at a cost of about $82,000. Based on these figures, we estimate the annual cost of the AD on U.S. operators to be $323,740. Our cost estimate is exclusive of possible warranty coverage.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator.

Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-08-07, Amendment 39-16657 (76 FR 24798, May 3, 2011) and adding the following new AD:

2012-06-23 **Rolls-Royce plc:** Amendment 39-17004; Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [Insert date 15 days after date of publication in the FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2011-08-07, Amendment 39-16657 (76 FR 24798, May 3, 2011).

(c) Applicability

This AD applies to Rolls-Royce plc (RR) RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines.

(d) Unsafe Condition

This AD was prompted by the determination by RR that additional serial numbers (S/Ns) of low-pressure (LP) compressor blades are affected and need to be inspected. We are issuing this AD to prevent LP compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

(1) Perform an initial ultrasonic inspection (UI) of the affected LP compressor blades identified by S/N in Appendices 3A through 3G of RR Alert Service Bulletin (ASB) No. RB.211-72-AG244, Revision 4, dated December 22, 2011. Use Table 1 of this AD to determine your initial inspection threshold.

Table 1 – Initial Inspection Thresholds

Appendix Number of RR ASB No. RB.211-72-AG244, Revision 4, that Identifies Affected LP Compressor Blades by S/N	Initial Inspection Threshold
3A and 3B	Within 70 flight cycles after the effective date of this AD.
3C	Within 10 months after the effective date of this AD.
3D	Within 22 months after the effective date of this AD.
3E	Within 34 months after the effective date of this AD.
3F	Within 46 months after the effective date of this AD.
3G	Within 58 months after the effective date of this AD.

(2) Thereafter, perform repetitive UIs of the affected LP compressor blades within every 100 flight cycles.

(3) Use paragraphs 3.A.(1) through 3.A.(2) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011, and paragraphs 1 through 3.B. of Appendix 1 of that ASB, or paragraphs 3.B.(1) through 3.B.(3) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011, and paragraphs 1 through 3.C. of Appendix 2 of that ASB, to perform the UIs.

(4) Do not return to service any engine with blades that failed the inspection required by this AD.

(5) For blades that are removed from the engine and pass inspection, re-apply dry film lubricant, and install all blades in their original position.

(6) After the effective date of this AD, do not install any affected LP compressor blade unless it has passed the initial and repetitive UIs required by this AD.

(f) Credit for Previous Actions

You may take credit for the initial inspection that is required by paragraph (e)(1) of this AD if you performed the initial inspection before the effective date of this AD using RR ASB No. RB.211-72-AG244, dated August 7, 2009; ASB No. RB.211-72-AG244, Revision 1, dated January 26, 2010; ASB No. RB.211-72-AG244, Revision 2, dated August 18, 2011; or ASB No. RB.211-72-AG244, Revision 3, dated December 13, 2011.

(g) FAA AD Differences

This AD differs from EASA AD 2012–0025, dated February 8, 2012. That AD requires inspecting LP compressor blades that are listed in Appendices 3A through 3L of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011, whereas this AD only requires inspection of LP compressor blades that are listed in Appendices 3A through 3G of the ASB.

(h) Alternative Methods of Compliance

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New

England Executive Park, Burlington, MA 01803; phone: 781-238-7143; fax: 781-238-7199; e-mail: alan.strom@faa.gov.

(2) Refer to EASA AD 2012-0025, dated February 8, 2012, for related information.

(j) Material Incorporated by Reference

(1) You must use Rolls-Royce plc Alert Service Bulletin No. RB.211-72-AG244, Revision 4, dated December 22, 2011, Appendix 1, Appendix 2, and Appendices 3A through 3G of that ASB, to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ, telephone: 011–44–1332–242424; fax: 011–44–1332–245418, or e-mail:http://www.rolls-royce.com/contact/civil_team.jsp.

(3) You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr_locations.html.

Issued in Burlington, Massachusetts, on March 20, 2012.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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